ABSTRACT OF THE DISCLOSURE

Protocol encoder and decoder. A protocol library provides the ability to allow protocols to be decoded or encoded by decoupling software code generation for decoding and encoding from specific protocols. For encoding field values into a network frame, the invention works by associating field values provided by a user with keywords. These keywords are known by a protocol library which is accessed to provide information of the data structure of the protocol data units of the network frame to be constructed. For decoding field values, network frames and the name of a protocol data unit of the network frame is received. The protocol library may be accessed with the protocol name in order to retrieve information of the data structure of the protocol data unit. The value of a field may then be associated with an appropriate keyword for use by an operator in an application.